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Substitution for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/616,294
				Filing Date	07/09/2003
				First Named Inventor	Choi et al.
				Group Art Unit	1763
				Examiner Name	Unassigned
				Attorney Docket Number	P92-32-03
Sheet	1	of	1		

[illegible]

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<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 10 if possible. <sup>6</sup>Applicant is to place a check mark here if English language translation is attached.

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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

1

of

4

Application Number

10/616,294

**Filing Date**

07/09/2003

**First Named Inventor**

Choi et al.

## Group Art Unit

1763

**Examiner Name**

Unassigned

Attorney Docket Number

P92/MII-44-26-03

## U.S. PATENT DOCUMENTS

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## FOREIGN PATENT DOCUMENTS

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Date  
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9/1/05

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Substitute for form 1449B/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				Application Number	10/616,294
				Filing Date	07/09/2003
				First Named Inventor	Choi et al.
				Group Art Unit	1763
				Examiner Name	Unassigned
Sheet	3	of	4	Attorney Docket Number	P92/MII-44-26-03

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
GMR	A27	CHOU et al., "Imprint of Sub-25 nm Vias and Trenches in Polymers," Applied Physics Letters, November 20, 1995, pp. 3114-3116, vol. 67(21).	
	A28	CHOU et al., "Imprint Lithography with 25-Nanometer Resolution," Science, Apr. 5, 1996, pp. 85-87, vol. 272.	
	A29	HAISMA et al., "Mold-Assisted Nanolithography: A Process for Reliable Pattern Replication," Journal of Vacuum Science and Technology, Nov/Dec 1996, pp. 4124-4128, vol. B 14(6).	
	A30	CHOU et al., "Imprint Lithography with Sub-10nm Feature Size and High Throughput," Microelectronic Engineering, 1997, pp. 237-240, vol. 35.	
	A31	FELDMAN et al., "Wafer chuck for manification correction in x-ray lithography," American Vacuum Society, 1998, pp. 3476-3479.	
	A32	SCHEER et al., "Problems of the Nanoimprinting Technique for Nanometer Scale Pattern Definition," Journal of Vacuum Science and Technology, Nov/Dec 1998, pp. 3917-3921, vol. B 16(6).	
	A33	COLBURN. et al., "Step and Flash Imprint Lithography: A New Approach to High-Resolution Patterning," Proc. of SPIE, 1999, pp. 379-389, vol. 3676.	
	A34	CHOU et al., "Lithographically-Induced Self Assembly of Periodic Polymer Micropillar Arrays," Journal of Vacuum Science and Technology, Nov/Dec 1999, pp. 3197-3202, vol. B 17(6).	
	A35	RUCHHOEFT et al., "Patterning Curved Surfaces: Template Generation by Ion Beam Proximity Lithography and Relief Transfer by Step and Flash Imprint Lithography," Journal of Vacuum Science and Technology, 1999, pp. 2965-2982, vol. 17.	
	A36	CHOI et al., "Design of Orientation Stages for Step and Flash Imprint Lithography," Precision Engineering, Journal of the International Societies for Precision Engineering and Nanotechnology, 2001, pp. 192-199, vol. 25.	
✓	A37	CHOU, "Nanoimprint Lithography and Lithographically Induced Self-Assembly," MRS Bulletin, July 2001, pp. 512-517.	

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		<b>Group Art Unit</b>	1763
		<b>Examiner Name</b>	Unassigned
<b>Sheet</b>	4	<b>of</b>	4
		<b>Attorney Docket Number</b>	P92/MII-44-26-03

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
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SNR	A38	CHOI et al., "High Precision Orientation Alignment and Gap Control Stages for Imprint Lithography Processes," U.S. Patent Application 09/698,317, Filed with USPTO on October 27, 2000.	
	A39	SREENIVASAN et al., "High-Resolution Overlay Alignment Methods and Systems for Imprint Lithography," U.S. Patent Application 09/907,512, Filed with USPTO on July 16, 2001.	
	A40	NIMMAKAYALA et al., "Magnification Correction Employing Out-of-Plane Distortion of a Substrate," U.S. Patent Application 10/735,110, Filed with USPTO on December 12, 2003.	

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				APPLICATION NUMBER	10/616,294
				FILING DATE	07/09/2003
				FIRST NAMED INVENTOR	Choi et al.
				Group Art Unit	1722
				Examiner Name	Rao, G Nagesh
				Attorney Docket Number	P92-34-03
Sheet	1	of	2		

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patent or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Paragraphs or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	D1	5,669,303		Maracas et al.	8/23/1997	
	D2	6,355,198	B1	Kim et al.	3/12/2002	
	D3	6,665,119	B1	Kurtz et al.	12/16/2003	
	D4	6,019,166		Viswanath et al.	2/1/2000	
	D5	5,563,684		Stagaman	10/8/1996	
	D6	2004/0250945	A1	Zheng et al.	12/16/2004	
	D7	2005/0037143	A1	Chou et al.	2/17/2005	
	D8	6,900,881		Sreenivasan et al.	5/31/2005	
	D9	6,908,861	B2	Sreenivasan et al.	6/21/2005	
	D10	6,916,584	B2	Sreenivasan et al.	7/12/2005	
	D11	6,816,585	B2	Sreenivasan et al.	7/12/2005	
	D12	6,919,152	B2	Sreenivasan et al.	7/19/2005	
	D13	2003/0062334	A1	Lee et al.	4/3/2003	
	D14	6,929,762	B2	Rubin	8/16/2005	

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Sheet	2	of	2	Attorney Docket Number	P92-34-03

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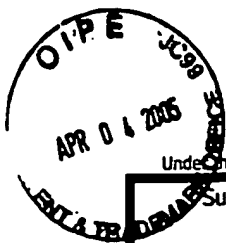
GMR	D15	PARK ET AL., Aligning Liquid Crystals Using Replicated Nanopatterns, PSI Scientific Report 2002, Vol VII, p. 85 3/1/2003	
	D16	APPLICATION NO. 11/126,946, naming Inventors Choi et al., entitled Formation of Discontinuous Films During an Imprint Lithography Process, filed 5/11/2005	
	D17	APPLICATION NO. 11/127,041, naming Inventors Sreenivasan et al., entitled Step and Repeat Imprint Lithography Processes, filed 5/11/2005	
	D18	APPLICATION NO. 11/127,060, naming Inventors Sreenivasan et al., entitled Step and Repeat Imprint Lithography Systems, filed 5/11/2005	
	D19	APPLICATION NO. 11/142,808, naming Inventors Cherala et al., entitled System for Varying Dimensions of a Substrate during Nano-Scale Manufacturing, filed 6/1/2005	
	D20	APPLICATION NO. 11/142,834, naming Inventors Cherala et al., entitled Method of Varying Dimensions of a Substrate during Nano-Scale Manufacturing, filed 6/1/2005	
	D21	APPLICATION NO. 11/142,839, naming Inventors Cherala et al., entitled Apparatus to Vary Dimensions of a Substrate during Nano-Scale Manufacturing, filed 6/1/2005	

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				<b>FIRST NAMED INVENTOR</b>	Choi et al.
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				<b>Examiner Name</b>	Nguyen, Thukhanh T.
				<b>Attorney Docket Number</b>	P92-34-03

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		Number	Kind Code <sup>2</sup> (if known)			

OK	C1	5,414,514		Smith et al.	5/9/1995	
	C2	5,808,742		Everett et al.	9/15/1998	
	C3	6,088,103		Everett et al.	7/11/2000	
	C4	6,137,562		Masuyuki et al.	10/24/2000	
	C5	6,334,960	B1	Willson et al.	1/1/2002	
	C6	6,391,217	B2	Schaffer et al.	5/21/2002	
	C7	6,522,411	B1	Moon et al.	2/18/2003	
	C8	6,696,220	B2	Bailey et al.	2/24/2004	
	C9	2004/0007799	A1	Choi et al.	1/15/2004	
	C10	2004/0021254	A1	Sreenivasan et al.	2/5/2004	
	C11	2004/0021866	A1	Watts et al.	2/5/2004	
	C12	2004/0022888	A1	Sreenivasan et al.	2/5/2004	
	C13	2004/0112861	A1	Choi et al.	6/17/2004	
	C14	2003/0092261	A1	Kondo et al.	5/15/2003	
	C15	2003/0179354	A1	Araki et al.	9/25/2003	
	C16	2002/0177319	A1	Chou	11/28/2002	
	C17	2002/0150398	A1	Choi et al.	10/17/2002	
	C18	6,713,238	B1	Chou et al.	3/30/2004	

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<b>Sheet</b>	<b>2</b>	<b>of</b>	<b>8</b>		

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2M	C19	2004/0008334	A1	Sreenivasan et al.	1/15/2004	
	C20	2004/0009673	A1	Sreenivasan et al.	1/15/2004	
	C21	2004/0124566	A1	Sreenivasan et al.	7/1/2004	
	C22	2004/0089979	A1	Rubin	5/13/2004	
	C23	2004/0086793	A1	Sreenivasan et al.	5/6/2004	
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	C26	6,150,231		Muller et al.	11/21/2000	
	C27	6,489,068	B1	Kye	12/3/2002	
	C28	6,646,662	B1	Nebashi et al.	11/11/2003	
	C29	6,770,852	B1	Stegner	8/3/2004	
	C30	6,776,094	B1	Whitesides et al.	8/17/2004	
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	C32	4,848,911		Uchida et al.	7/18/1989	
	C33	5,074,667		Miyatake	12/24/1991	
	C34	5,148,036		Matsugu et al.	9/15/1992	
	C35	5,148,037		Suda et al.	9/15/1992	
	C36	6,518,189	B1	Chou	2/11/2003	

<b>Examiner Signature</b>		<b>Date Considered</b>	9/11/05
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				<b>FILING DATE</b>	07/09/2003
				<b>FIRST NAMED INVENTOR</b>	Choi et al.
				Group Art Unit	1722
				Examiner Name	Nguyen, Thukhanh T.
				Attorney Docket Number	P92-34-03
Sheet	3	of	8		

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			

C37	2002/0132482	A1	Chou	9/19/2002	
C38	2002/0167117	A1	Chou	11/14/2002	
C39	6,482,742	B1	Chou	11/19/2002	
C40	2003/0081193		White et al.	5/1/2003	
C41	2003/0080471	A1	Chou	5/1/2003	
C42	2004/0036201	A1	Chou et al.	2/26/2004	
C43	2004/0192041	A1	Jeong et al.	9/30/2004	
C44	6,828,244	B2	Chou	12/7/2004	
C45	6,809,356	B2	Chou	10/26/2004	
C46	5,737,064		Inoue et al.	4/7/1998	
C47	2002/0018190	A1	Nogawa et al.	2/14/2002	
C48	2004/0197843	A1	Chou et al.	10/7/2004	
C49	2004/0156108	A1	Chou et al.	8/12/2004	
C50	2004/0137734	A1	Chou et al.	7/15/2004	
C51	2004/0131718	A1	Chou et al.	7/8/2004	
C52	2004/0118809	A1	Chou et al.	6/24/2004	
C53	2004/0046288	A1	Chou	3/11/2004	
C54	2003/0080472	A1	Chou	5/1/2003	

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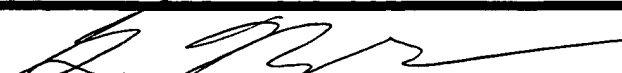
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				<b>Examiner Name</b>	Nguyen, Thukhanh T.
				<b>Attorney Docket Number</b>	P92-34-03
<b>Sheet</b>	<b>4</b>	<b>of</b>	<b>8</b>		

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C55	2003/0034329	A1	Chou	2/20/2003	
C56	2002/0042027	A1	Chou et al.	4/11/2002	
C57	6,636,311	B1	Ina et al.	10/21/2003	
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C61	2004/0223131	A1	Choi et al.	11/11/2004	
C62	6,630,410	B2	Trapp et al.	10/7/2003	
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C68	6,049,373		Miyatake	4/11/2000	
C69	6,285,439	B1	Miyatake	9/4/2001	
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C71	6,517,995	B1	Jacobenson et al.	2/11/2003	
C72	4,256,829		Daniel	3/17/1981	

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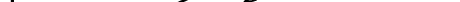
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<b>APPLICATION NUMBER</b>	10/616,294
				<b>FILING DATE</b>	07/09/2003
				<b>FIRST NAMED INVENTOR</b>	Choi et al.
				Group Art Unit	1722
				Examiner Name	Nguyen, Thukhanh T.
<i>(use as many sheets as necessary)</i>				Attorney Docket Number	P92-34-03
Sheet	5	of	8		

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Sheet	6	of	8	Attorney Docket Number	P92-34-03

FOREIGN PATENT DOCUMENTS								
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		Office 3	Number <sup>2</sup>	Kind Code <sup>5</sup> (if known)				

GIA	C78	WO	00/21689		Chou et al.	4/20/2000		
	C79	JP	02-92603		Kunikawa et al.	4/3/1990		
	C80	JP	02-24848		Kamio	1/26/1990		
	C81	WO	01/47003		Steiner et al.	6/28/2001		
	C82	WO	02/07199		Chou	1/24/2002		
	C83	WO	2004/114016		Chou et al.	12/29/2004		
	C84	WO	99/05724		Chou et al.	2/4/1999		
	C85	WO	03/010289		Chou et al.	2/6/2003		
	C86	WO	03/079416		Chou	9/25/2003		
✓	C87	WO	03/099536		Chou et al.	12/4/2003		

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Sheet	7	of	8	Examiner Name	Nguyen, Thukhanh T.
				Attorney Docket Number	P92-34-03

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite, No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>

EMR	C88	Colburn et al., Step and Flash Imprint Lithography for sub-100 nm Patterning, Proceedings of SPIE Vol. 3997, pp. 453 - 457, 1/1/2000	
	C89	Chou et al., Imprint Lithography with Sub-10 nm Feature Size and High Throughput, Microelectronic Engineering 35, pp. 237 - 240, 1/1/1997	
	C90	Johnson et al., Advances in Step and Flash Imprint Lithography, SPIE Microlithography Conference, 2/23/2003	
	C91	Heidari, Nanoimprint Lithography at the 6 in. Wafer Scale, J. Vac. Sci. Technol. B 18(6), pp. 3557 - 3560, 11/1/2000	
	C92	White et al., Novel Alignment System for Imprint Lithography, J. Vac. Sci. Technol. B 18(6), pp. 3552 - 3556, 11/1/2000	
	C93	Translation of Japanese Patent 02-92603	
	C94	Translation of Japanese Patent 02-24848	
	C95	Chou et al., Ultrafast and Direct Imprint of Nanostructures in Silicon, Nature, Vol. 417, (June 2002), pp. 835-837, 6/1/2002	
	C96	Chou et al., Nanoimprint Lithography, Journal of Vacuum Science Technology B 14(16), pp. 4129-4133, 11/1/1996	

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GNR	C97	Colburn et al., Development and Advantages of Step-and-Flash Lithography, Solid State Technology, 7/1/2001	
	C98	Colburn et al., Characterization and Modeling of Volumetric and Mechanical Properties for Step and Flash Imprint Lithography Photopolymers, Journal of Vacuum Science Technology. Vol b. 19(6), 11/1/2001	
	C99	Bailey et al., Step and Flash Imprint Lithography: Defect Analysis, Journal of Vacuum Science, B 19(6), pp. 2806-2810, 11/1/2001	
	C100	Bailey et al., Step and Flash Imprint Lithography: Template Surface Treatment and Defect Analysis, Journal of Vacuum Science, B 18(6), pp. 3572-3577, 11/1/2000	
	C101	Wronosky et al., Wafer and Reticle Positioning System for the Extreme Ultraviolet Lithography Engineering Test Stand, Emerging Lithography Technologies, Proceedings of SPIE Vol. 3997, pp. 829-839, 7/1/2000	
	C102	Schneider et al., Stripes of Partially Fluorinated Alkyl Chains: Dipolar Langmuir Monolayers	
	C103	Martin et al., Predication of Fabrication Distortions in Step and Flash Imprint Lithography Templates, Journal of Vacuum Science Technology B 20(6), pp. 2891-2895, 11/1/2002	

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